

Product datasheet for **SC304884**

Choline Acetyltransferase (CHAT) (NM_020984) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Choline Acetyltransferase (CHAT) (NM_020984) Human Untagged Clone
Tag:	Tag Free
Symbol:	Choline Acetyltransferase
Synonyms:	CHOACTASE; CMS1A; CMS1A2; CMS6
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_020984 edited
AAGACGCCCATCTGGAAAAGGTCCCCCGTAAGATGGCAGCAAAAACCTCCCAGCAGTGAG
GAGTCTGGGCTGCCAAACTGCCCGTGCCCGCTGCAGCAGACCCTGGCCACGTACCTG
CAGTGCATGCGACACTTGGTGTCTGAGGAGCAGTTCAGGAAGAGCCAGGCCATTGTGCAG
CAGTTTGGGGCCCTGGTGGCCTCGGCGAGACCCTGCAGCAGAAACTCCTGGAGCGGCAG
GAGAAGACAGCCAACCTGGGTGTCTGAGTACTGGCTGAATGACATGTATCTCAACAACCGC
CTGGCCCTGCCTGTCAACTCCAGCCCTGCCGTGATCTTTGCTCGGCAGCACTTCCCTGGC
ACCGATGACCAGCTGAGGTTTGACGCCAGCCTCATCTCTGGTGTACTCAGCTACAAGGCC
CTGCTGGACAGCCACTCCATTCCCACTGACTGTGCCAAAGGCCAGCTGTAGGGCAGCCC
CTTTGCATGAAGCAATACTATGGGCTCTTCTCCTCTACCGGCTCCCCGGCCATACCCAG
GACACGCTGGTGGCTCAGAACAGCAGCATCATGCCGGAGCCTGAGCACGTATCGTAGCC
TGCTGCAATCAGTTCTTTGTCTTGGATGTTGTCATTAATTTCCGCCGTCTCAGTGAGGGG
GATCTGTTCACTCAGTTGAGAAAGATAGTCAAAATGGCTTCCAACGAGGACGAGCGTTTG
CCTCCAATTGGCCTGCTGACGTCTGACGGGAGGAGCGAGTGGGCCGAGGCCAGGACGGTC
CTCGTGAAGACTCCACCAACCGGGACTCGCTGGACATGATTGAGCGCTGCATCTGCCTT
GTATGCCTGGACGCGCCAGGAGCGTGGAGCTCAGCGACACCCACAGGGCACTCCAGCTC
TTTCACGGCGGAGGCTACAGCAAGAACGGGGCCAATCGCTGGTACGACAAGTCCCTGCAG
TTTGTGGTGGGCCGAGACGGCACCTGCGGTGTGGTGTGCCAACTCCCCATTTCGATGGC
ATCGTCTGGTGCAGTGCAGTGCATCTGCTCAAGCACATGACGCAGAGCAGCAGGAAG
CTGATCCGAGCAGACTCCGTGAGCGAGCTCCCCGCCCCCGGAGGCTGCGGTGAAATGC
TCCCCGAAATTAAGGCCACTTAGCCTCCTCGGCAGAAAAACTCAACGAATAGTAAAG
AACCTTGACTTCATTGTCTATAAGTTTGACAATATGGGAAAACATTCAATTAAGAAGCAG
AAATGCAGCCCTGATGCCTTCCAGGTGGCCCTCCAGCTGGCCTTCTACAGGCTCCAC
CGAAGACTGGTGGCCACCTACGAGAGCGGTCCATCCGCCGATTCCAGGAGGGACCGGTG
GACAACATCAGATCGGCCACTCCAGAGGCACTGGCTTTTGTGAGAGCCGTGACTGACCAC
AAGGCTGCTGTGCCAGCTTCTGAGAAGCTTCTGCTCCTGAAGGATGCCATCCGTGCCAG
ACTGCATACACAGTATGGCCATAACAGGGATGGCCATTGACAACCACCTGCTGGCACTG
CGGGAGCTGGCCCGGCCATGTGCAAGGAGCTGCCCGAGATGTTTCATGGATGAAACCTAC
CTGATGAGCAACCGGTTTGTCTCTCCACTAGCCAGGTGCCACAACCACGGAGATGTTT
TGCTGCTATGGTCTGTGGTCCCAAATGGGTATGGTGCCTGCTACAACCCCGAGCCAGAG
ACCATCCTTTTCTGCATCTCTAGCTTTTACAGCTGCAAAGAGACTTCTTCTAGCAAGTTT
GCAAAAGCTGTGGAAGAAAGCCTATTGACATGAGAGACCTCTGCAGTCTGCTGCCGCT
ACTGAGAGCAAGCCATTGGCAACAAGGAAAAAGCCACGAGGCCAGCCAGGGACACCAA
CCTTGACTCCTGCCACTAGGTTTACCTCCCAAACCCA

Restriction Sites: Please inquire

ACCN: NM_020984

Insert Size: 2000 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: The ORF of this clone has been fully sequenced and found to contain one SNP compared with NM_020984.1.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_020984.1](#), [NP_066264.1](#)

RefSeq Size: 2124 bp

RefSeq ORF: 2124 bp

Locus ID: 1103

UniProt ID: [P28329](#)

Cytogenetics: 10q11.23

Protein Families: Druggable Genome

Protein Pathways: Glycerophospholipid metabolism

Gene Summary: This gene encodes an enzyme which catalyzes the biosynthesis of the neurotransmitter acetylcholine. This gene product is a characteristic feature of cholinergic neurons, and changes in these neurons may explain some of the symptoms of Alzheimer's disease. Polymorphisms in this gene have been associated with Alzheimer's disease and mild cognitive impairment. Mutations in this gene are associated with congenital myasthenic syndrome associated with episodic apnea. Multiple transcript variants encoding different isoforms have been found for this gene, and some of these variants have been shown to encode more than one isoform. [provided by RefSeq, May 2010]
Transcript Variant: This variant (R) contains alternate 5' exon R (PMID 7616604) and encodes isoform 1. Transcript variants R, N1, N2, M and S encode isoform 1.